



## **A School-Based Intervention Study of Urban and Rural Indigenous High School Students in the East Khasi Hills District, Meghalaya**

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### **Abstract**

In this study, the relative effectiveness of two versions of the *Jiva* model of career counselling—a Three-Day career counselling programme and a One-Day career counselling programme—was examined. A Measure of Guidance Impact (MGI) along with an Index of Effectiveness (IE) were applied to understand the outcomes of the interventions. A pre- and post-test with a waiting-list control design was employed. Outcome measures included the career preparation status, career belief patterns, and academic achievement motivation of 492 male and female high school students in rural and urban areas of the East Khasi Hills District, Meghalaya, India. While both the Three-Day and the One-Day programmes brought change, the Three-Day programme was seen to bring greater gains. Of all the outcome measures, the career preparation status of participating students was most responsive to intervention, change in negative career beliefs was less so. Findings are reported keeping in view current developmental theories and the social, political, academic, and cultural factors prevalent in the collectivist and matrilineal society in Meghalaya.

**Keywords:** career counselling, career orientations, high school

### **Introduction**

There is a growing need for theoretically sound, culturally and psychologically validated, career counselling services to be made available at scale for use in the Indian situation (Arulmani & Nag-Arulmani, 2006). India is one of the world's fastest growing economies and a decade of economic reforms has widened occupational possibilities. It is against this background that the crucial need for effective career preparation services for youth has surfaced.

A key factor that comes into play when planning large scale systemic

interventions is the question of duration of the intervention. Schools have their own curricular requirements to fulfil within the academic year. Introducing a non-curricular intervention often brings up the question of its perceived interference with the completion of the curriculum. Hence, the tendency often is to reduce the duration of such interventions. While integrating career guidance within the curriculum and embedding career counselling into the school system has been a common recommendation (e.g., International Youth Federation [IYF], 2011; Nongbri, 1996; Organisation for Economic Cooperation and Development [OECD], 2003) there is a need to find

a solution to circumvent the difficulty of acceptance of such non-curricular programmes. This study, therefore, addresses two specific gaps in the literature. First, the issue of embedding a career counselling programme within the school system within the constraints of time availability: For this, the efficacy of a shorter programme (1-day duration) is compared to the efficacy of a more intensive programme (3-day duration). Second, there is no record of any career guidance intervention having been tested in Meghalaya. This study examines the issues involved by focusing on communities indigenous to Meghalaya, India.

Grade 10 in India is a crucial stage that determines further career development. This stage becomes all the more special in the case of tribal populations whose cultures are unique. Of particular interest in this paper are the specificities of the tribal populations located in the East Khasi Hills district of Meghalaya in Northeast India. A number of factors influence the career development of young people in this area. This includes socioeconomic background, the forces of rural-urban migration, poor educational outcomes and, socio-political issues such as low infrastructure development and insurgency. Interesting also are the local sociocultural practices. The main tribes in this region, namely the Khasis, the Jaiñtias, and the Garos follow a matrilineal social structure. Part of this structure is to pass the inheritance of ancestral property to the youngest daughter (*kakhatduh* in the Khasi language). Customs such as this could strongly influence a young person when she makes career decisions and could in fact take decision-making out of her hands.

Keeping these realities in view, the objectives of the study were formulated as follows:

1. To determine the career preparation status, academic achievement

motivation level, and career belief patterns among high school students.

2. To identify the relative effectiveness of two models of a school-based career counselling intervention (a 3-day intervention and a 1-day Intervention) among high school students in both rural and urban settings.

### Theoretical Overview of Key Constructs

#### Developmental Theories and Career Preparation Status

A particularly relevant construct from developmental theories is that of readiness to engage with career development tasks. Various theories have described the process and defined related constructs. Here, it is important to note that these processes could manifest differently in different contexts. Therefore, while the process of circumscription (Gottfredson, 1981), for instance, may be palpable, it may not occur in the manner that it has been described in the context of middle class communities in the United States. Social organisation in Meghalaya is collectivist and major decisions are primarily made by parents or elders on behalf of the child. Similarly, compromise may connote alignment with what is beneficial to the family, rather than one's personal wishes. Keeping these various sociocultural influences in view, Arulmani (2006) argues that it is important to understand the career preparation status of the career chooser and the possible unique variations in career developmental lag (Arulmani & Nag-Arulmani, 2006) that students in different contexts, including in Meghalaya, could manifest. The notion of career preparation status could also be an indication of career maturity (Super, 1957) and degree of decidedness about one's career plan (Kleiman & Gati, 2004). Keeping these developmental concepts in mind, career preparation status in this study has been defined as the individual's readiness to make career decisions (Arulmani, 2006).

### **Academic Achievement Motivation and Career Goals**

Atkinson (1965) explains that, relating to academics, when a task is perceived to have no relationship to future achievement endeavours, achievement motivation is not aroused. The future goals referred to by this theory of achievement motivation are self-defining goals that provide incentive for action (Ryan & Deci, 2000) which include important personal aspirations such as striving for a career or job. While these lines of argument have developed within non-indigenous cultures, certain special patterns of motivation seem to characterise indigenous peoples. For example, Australian aboriginal students were found to learn better and were motivated when they worked as a group and helped each other rather than competing to be ahead of the others (Milliken, 2005). What motivates students in Meghalaya and the factors that influence the academic achievement motivation of students requires further investigation especially because the school drop-out rate in Meghalaya is alarming. The past five years (2013-2017) has recorded a total of 109,495 drop outs across all the districts (The Shillong Times, 2017). Furthermore, the average pass percentage in the Grade 10 matriculation examinations across 2013-2017 has been recorded as 56.31% in the Meghalaya Board of Secondary Education (MBOSE, 2013-2017) which is lower than many states in India. Against this background, the definition of academic achievement motivation has been taken as students' energy and drive to learn, work effectively, and achieve their potential at school (Martin, 2012).

### **Career Beliefs**

Krumboltz (1994) who originally coined the term career belief said, "The way in which people make career decisions depends on what they believe about themselves and the world of work" (p. 424). Conducted in 2005, across 6,530 students in 15 regions and 8 languages, the Work Orientations and

Responses to Career Choices – Indian Regional Survey (WORCC-IRS, Arulmani & Nag-Arulmani, 2006) explored Indian young people's work and career orientations. A significant finding was that as socioeconomic (SES) increases, the negativity in career beliefs decreases. This study defined career belief as "...a conglomerate of attitudes, opinions, convictions, and notions which seem to cohere together to create mindsets and beliefs that underlie people's orientation to the idea of a career" (Arulmani & Nag-Arulmani, 2004, p. 107). In Meghalaya, there has been little or no research conducted on the role of career beliefs on career preparation.

### **Cultural Influences**

Oyserman, Coon, and Kimmelmeier (2002) explained that the core elements depicting individualism are the emphasis placed upon personal uniqueness and independence, whereas duty to the in-group and maintaining the status quo are the main constituents of collectivism. Brown and Lavish (2006) reported that the collectivist orientation of Native American students, for instance, show significantly greater salience to value expectations for their family and community service roles compared with their work roles. The mediation of culture, therefore, emerges as a critical factor to be considered in the formulation and delivery of career development services. According to the Cultural Preparation Process Model (CPPM, Arulmani, 2014) the manner in which an individual and group are prepared by their culture (cultural preparedness) explains their engagement with work and career development. However, there is little or no empirical evidence available to explain the cultural implications of career counselling in Meghalaya.

### **Career Counselling Interventions**

There are several types of career guidance interventions provided for young people. Dykeman et al. (2001), for example, compiled a list of career guidance interventions in the United

States which were categorised into (1) Work-Based Interventions, (2) Advising Interventions, (3) Introductory Interventions, and (4) Curriculum-Based Interventions. With a view to testing the effectiveness of an established intervention, developed specifically for India, the Jiva Approach to Career Guidance and Counselling (Arulmani, 2010) was selected. A review of the literature indicated that this is perhaps the only complete system of career guidance developed specifically for the Indian cultural context. Further details are given in the following sections.

Several variables were of interest to this study: Socioeconomic status (SES), gender, and location (rural/urban). SES is known to mediate career development orientations (e.g., Arulmani & Nag-Arulmani, 2004). The literature also has constantly indicated that strong interactions are present between gender and career development (Creed & Patton, 2003). It is also well known that orientations to career development vary in rural and urban areas (Bennett, 2008; Lyngdoh, 2000).

Based on these indications in the literature, career preparation status, career beliefs, and academic achievement motivation were selected to be the outcome measures in this study.

## Method

### Sampling

The list of all 156 English-medium high schools in the region was obtained from the office of the Inspector of Schools, East Khasi Hills District, Meghalaya. There were 26 schools which indicated that they had already received career guidance in some form in the preceding year most of which was in the form of one-hour talks on particular careers or advice on how to prepare for competitive exams; 21 schools had less than 10 students; 40 were poor functioning schools. The remaining 59 schools comprised the pool (see details in Table 1). Stratified random sampling was used to select school types

reflecting each needed subgroup (i.e., schools catering to boys and girls, schools in the urban vs. rural areas). This was followed by simple random selection using the lottery method to select individual schools within each subgroup.

The research started with 21 schools ( $N = 798$ ). However, attrition occurred when schools withdrew from the study (sometimes overnight or in some cases during the intervention). The reasons for withdrawal included a change in school schedules, having many other activities during the year, the long duration required for testing and intervention for the study, and an unexpected *bandh* (closure of public services). Finally, therefore, a total of 492 students from 14 schools completed the study. The distribution of the sample before and after attrition is given in Table 1 for each sub-group of interest.

Two interventions were evaluated: a Three-Day intervention and a One-Day intervention. Each group had a corresponding, matched control group. The sample description for each group is given in Table 2.

The Three-Day experimental condition followed the standardised design of the Jiva intervention. The One-Day experimental condition was a modified version of the standardised design. Hence, the impact of the duration of the interventions on the dependant variables was examined. A pre-test post-test quasi-experimental design was selected. Prior to the start of the main study, a pilot study was conducted. Two hundred high school boys and girls in five randomly selected schools in the East Khasi Hills District of Meghalaya participated in the pilot study. The outcomes of this pilot contributed to the compilation of the tools for the main study.

### Tools

**Career Preparation Status Questionnaire (CPSQ) (Arulmani, 2006).** The CPSQ gathers information related to five categories: General Orientation (GO),

Table 1. An Overview of the Demographic Details of the Sample Pool, and the Sample Before and After Attrition.

Sample	Number	Mean Age (SD)	Urban		Rural		Low SES				Middle SES				High SES								
			N (%)	Boys N (%)	Girls N (%)	N (%)	Boys N (%)	Girls N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)
1	2360	15.4 (1.3)	1200 (50.8)	589 (24.9)	611 (25.9)	1160 (49.2)	606 (25.6)	554 (23.5)	964 (40.8)	423 (17.9)	541 (22.9)	538 (22.7)	426 (18.1)	681 (28.9)	343 (14.5)	338 (14.3)	351 (14.9)	330 (14.0)	715 (30.3)	377 (16.0)	338 (13.3)	396 (16.8)	319 (13.5)
2	798	16.1 (1.2)	406 (50.8)	198 (24.8)	208 (26.0)	392 (49.1)	198 (24.8)	194 (24.3)	321 (40.2)	144 (18.0)	177 (22.2)	165 (20.7)	156 (19.5)	244 (30.6)	119 (15.0)	125 (15.7)	125 (15.7)	119 (15.0)	233 (29.2)	120 (15.1)	113 (14.1)	138 (17.3)	95 (11.9)
3	492	15.9 (1.4)	291 (59.1)	134 (27.2)	157 (32.0)	201 (41.0)	107 (21.7)	94 (19.1)	182 (34.0)	87 (17.7)	95 (19.3)	113 (23.0)	69 (14.0)	147 (29.9)	67 (13.6)	80 (16.3)	79 (16.0)	68 (13.8)	163 (33.1)	87 (17.7)	76 (15.4)	99 (20.1)	64 (13.0)

Note:

- 1: The Sample Pool after the first round of exclusion = 59 schools.
- 2: Sample selected by lottery = 21 schools.
- 3: Final sample after attrition = 14 schools.

Table 2. Distribution of the Sample across the Experimental and Control Conditions (14 schools, N = 492)

Condition	Number (%)	Urban		Rural		Low SES				Middle SES				High SES								
		N (%)	Boys	Girls	N	Boys	Girls	N (%)	Boys	Girls	Urban	Rural	N (%)	Boys	Girls	Urban	Rural	N (%)	Boys	Girls	Urban	Rural
		N (%)	N (%)	(%)	N (%)	N (%)		N (%)	N (%)	N (%)	N (%)		N (%)	N (%)	N (%)	N (%)		N (%)	N (%)	N (%)	N (%)	
One-Day Group	156 (31.7)	88 (17.9)	40 (8.1)	48 (9.8)	68 (13.8)	36 (7.3)	32 (6.5)	51 (10.4)	19 (3.9)	32 (6.5)	38 (7.7)	13 (2.6)	61 (12.4)	26 (5.3)	35 (7.1)	39 (7.9)	22 (4.5)	44 (9.0)	23 (4.7)	21 (4.3)	29 (5.9)	19 (3.9)
Three-Day Group	151 (30.7)	92 (18.7)	39 (7.9)	53 (10.8)	59 (12.0)	24 (4.9)	35 (7.1)	45 (9.1)	24 (4.9)	21 (4.3)	27 (5.5)	18 (3.7)	51 (10.4)	23 (4.7)	28 (5.7)	16 (3.2)	35 (7.1)	55 (11.2)	37 (7.5)	18 (3.7)	38 (7.7)	17 (3.5)
Control Group	185 (37.6)	111 (22.6)	55 (11.2)	56 (11.4)	74 (15.0)	47 (9.6)	27 (5.5)	86 (17.5)	44 (9.0)	42 (8.5)	48 (9.8)	38 (7.7)	35 (7.1)	18 (3.7)	17 (3.5)	24 (4.9)	11 (2.2)	64 (13.0)	27 (5.5)	37 (7.5)	32 (6.5)	28 (5.7)
Total	492 (100.0)	291 (59.1)	134 (27.2)	157 (32.0)	201 (41.0)	107 (21.7)	94 (19.1)	182 (34.0)	87 (17.7)	95 (19.3)	113 (23.0)	69 (14.0)	147 (29.9)	67 (13.6)	80 (16.3)	79 (16.0)	68 (13.8)	163 (33.1)	87 (17.7)	76 (15.4)	99 (20.1)	64 (13.0)

Note:

- One-Day Group = 6 schools.
- Three-Day Group = 4 schools.
- Control Group = 4 schools.
- Percentages have been calculated against the total number of students (N = 492) in the study.

Self-Understanding (SU), Understanding the World of Work (WOW), Career Preparation (CP), and Career Alternative (CA). CPSQ scores are classified into five levels: low, low average, average, high average, and high career preparation status. A three-month test-retest of the questionnaire showed a reliability coefficient of .92.

**Academic Achievement Motivation Test (AAMT) (Sharma, 2005).**

The AAMT tool has been designed to identify how students' level of motivation in relation to school-based academic experiences and situations linked to studies. The AAMT classifies scores into three levels: low motivation, average motivation, high motivation. A three-month test-retest of the test showed a reliability coefficient estimate of .79 for boys and .80 for girls. Permission for translation from the original Hindi version to English was sought and granted by the test publisher (National Psychological Corporation, Agra, India).

**Career Belief Patterns Scale (CBPS) (Arulmani, 2011).**

The CBPS assesses career belief patterns on the themes of Control and Self-Direction, Culture and Norms, Fatalism, Persistence, Prestige and Social Status, Proficiency, and Self-Worth. The scale comprises 40 vignettes reflecting real-life career development situations. Separate forms have been developed for boys and girls. The CBPS has a 6-week test-retest reliability of .84. Percentile norms are

presented as low, low-average, average, high-average, and high, where low refers to the lowest range and high refers to the highest range of negativity tapped by the CBPS.

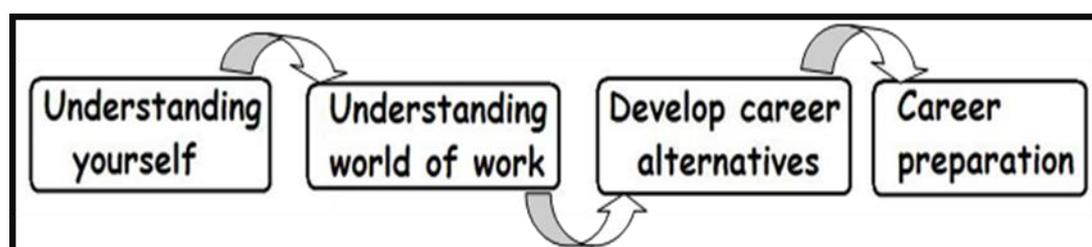
**Measure of Guidance Impact (MGI) (Christophers, Stoney, Lines, & Kendall, 1993).**

The MGI addresses four categories of guidance widely used within the guidance service: decision-making, opportunity awareness, transition skills, and self-awareness. The MGI gives an overall score measuring the level of career awareness that clients demonstrate after receiving guidance. The scale is anchored to a five-point rating scale for each item. MGI has a test-retest reliability of .89.

**Intervention**

The Jiva Approach to Career Guidance and Counselling (Arulmani, 2010) was adapted for this study. All the components of the Jiva approach (e.g., assessment tools, career dictionaries, career information, and student activities) have been developed with specific reference to India. Jiva draws upon three theoretical positions, namely: Career Developmental Theory (Gottfredson, 1981; Super, 1957), Social Cognitive Theory (Bandura, 2001), and the Cultural Preparation Process Model (Arulmani, 2014). Jiva is an activity-based, student-mediated approach that delivers career guidance using a four-step process referred to as the Career Discovery Path as shown in Figure 1 (Arulmani, 2010).

Figure 1: The Jiva Career Discovery Path



Source: Arulmani, G. and Nag-Arulmani, S. (2004).

**Self-understanding.** A wide range of activities help the student to identify his/her interests, aptitudes, and potentials. In addition, the student engages in activities that are designed to sharpen his/her sensitivity to how career beliefs could hamper or hinder the realisation of personal potentials.

**Understanding the World of Work.** Students are exposed to 164 career names, career definitions, tasks related to that career, and educational pathways leading to that career. This section arguably sharpens students' sensitivity to the meaning and purpose of work, the tasks associated with a given career, and skills for making decisions.

**Developing Career Alternatives.** Based on their learning from activities in the earlier sections of the intervention, students identify three to five careers that are closely related to their identified potentials and preferences.

**Career Preparation.** Finally, students learn the skills to optimise their career alternatives by developing five-year career paths, and examining ways to cope with career barriers and achieve their career goals.

The workshop includes individual and group activities. The assessment is based on a mixed-methods approach that incorporates psychometric devices with qualitative information related to the student's culture, academic history, and accomplishments. The interpretation of the results of the assessment is individual-based and person-centred. Interpretation of assessment results, for example, takes an intrapersonal approach rather than a statistically derived, normative interpersonal measurement.

The Three-Day programme followed the standard design of the Jiva programme providing all components of the curriculum and ran for approximately 12 hours. The modified One-Day programme kept all the major components but ran a smaller number of activities

under each, and the duration was for 6.5 hours.

### Qualifications of Facilitator

The intervention in all participating schools was facilitated exclusively by the researcher who had a postgraduate degree in Counselling Psychology and was also a trained practitioner of the Jiva method with extensive experience in applying the method at the grassroots level in Meghalaya. A paid assistant was recruited for the purpose of translating concepts which were difficult to understand in the local language. The assistant had a postgraduate degree in Counselling Psychology and was a certified facilitator of the Jiva programme.

### Plan of Analysis

A combination of descriptive and inferential statistical procedures was used for data analysis. The paired sample t-test and the independent samples t-test were used for each of the dependent variables examined, and within the various independent variables. A series of one-way Analysis of Variance (ANOVA) was used to determine the main effect of intervention type and the interaction effects with a selection of variables of interest.

The magnitude of change effected by the interventions was also of focal interest. Data from the post-intervention analyses indicated that pre-intervention and post-intervention scores did not have equal variances and equal reliability. Post-intervention test scores were not normally distributed. The literature indicates that in such situations the difference score maybe a more suitable level of analysis (e.g., Dimitrov & Rumrill, 2003). Hence, the difference score (T2 minus T1) was used for all analyses. For comparison across the different scales, the raw score was converted to a percentage score.

One further metric to analyse the outcomes of the interventions was the Index of Effectiveness (IE) developed

specifically for the purposes of this study. An index of effectiveness draws upon the norms of a given scale to delineate levels of improvement. For instance, the norms of the Career Preparation Status Questionnaire (CPSQ) are presented as five levels of preparedness: Low, Low Average, Average, High Average, and High. As per the IE formulation, the increase of score value from one level to the next level is given a value of 1, an increase of score value across two levels receives a value of 2, and so on. This value has been termed as Index of Effectiveness (IE) in this writing. The IE was computed as follows. The norms of each scale were used as the frame of reference to compute IE. Each score-range was given one IE value. Movement from one score-range to the next score-range was identified as an increase of one IE value.

### Findings

#### Pre-Intervention

A report of the pre-intervention status of the school students who participated in this study is available in Sangma and Arulmani (2013). There are several trends in the pre-intervention data,

the key amongst them being the following: In the area of career preparation status, rural students showed better scores, and gender difference in career preparation was not recorded. In the area of Career Belief Patterns, urban male students from higher SES had higher negativity in their career belief patterns. In the area of reported academic achievement motivation, girls reported higher levels of motivation than boys, and urban students reported higher levels than rural students.

Table 3 shows that the difference between the mean scores of the Three-Day experimental group and Three-Day control group was not statistically significant at T1 on the CPSQ ( $t_{[235]} = -2.263, ns$ ; CBPS  $t_{[235]} = -2.216, ns$ ; and AAMT  $t_{[235]} = -6.083, ns$ ). Similarly, mean scores of the One-Day experimental and One-Day control groups were not significantly different on the CPSQ ( $t_{[253]} = -1.460, ns$ ; CBPS  $t_{[253]} = -.101, ns$ ; and AAMT  $t_{[253]} = -1.768, ns$ ). These results indicate that before the beginning of the intervention, the experimental and control groups for the three-day as well as the one-day intervention conditions were at similar levels of career preparation, career belief patterns, and academic achievement motivation.

Table 3: Scores obtained at Pre-Intervention (Time 1)

Tests <sup>1,2</sup>	Mean Scores Obtained (SD)				Interpretation of Scores as per the norms of each scale
	Three-Day Intervention		One-Day Intervention		
	Intervention Group (N = 151)	Waiting-list Control Group (N = 86)	Intervention Group (N = 156)	Waiting-list Control Group (N = 99)	
CPSQ	17.07 (9.76)	19.63 (7.47)	17.79 (10.72)	19.68 (8.93)	Low Career Preparation Status which is the lowest category in the CPSQ.
CBPS	119.87 (35.27)	129.91 (30.25)	135.79 (31.25)	136.22 (35.56)	High negativity which is the highest category in the CBPS
AAMT	21.62 (4.66)	25.33 (4.23)	22.88 (4.61)	23.94 (3.56)	Low motivation which is the lowest category in the AAMT

Note: CPSQ = Career Preparation Status Questionnaire (Theoretical Range = 0-86). High scores indicate readiness in making career decisions. CBPS = Career Belief Patterns Scale (Theoretical Range = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Theoretical Range = 0-38). High scores indicate high motivation in academic motivated in aspects related to his/her academic experience.

### Post-Intervention

A difference score was computed by subtracting each participating student's score on a test at Time 2 (T2) from that student's performance on the same test at Time 1 (T1). The mean difference scores showed that career preparation status and academic achievement motivation increased and negativity of career beliefs decreased for both the Three-Day and One-Day experimental groups when compared with their respective control groups (see columns 2 and 6, Table 4). In

order to test the efficacy of the interventions, a series of independent-samples *t*-tests were conducted. The test was found to be significant for the measures of career preparation status, career belief scores, academic achievement motivation scores, and the measure of guidance impact (for *t*-tests and *p* values see Table 4). These findings suggest that the students in both the experimental groups have benefitted irrespective of whether they received a Three-Day career counselling programme or a One-Day programme.

*Table 4: Mean Difference Scores (T2 in percentages minus T1 in percentages) of the Experimental and Control Groups with t-tests*

Tests <sup>2</sup>	Three-Day Experimental Group Mean Difference Score N = 151	Control Group Mean Difference Score N = 86	t-test <sup>1</sup>	One-Day Experimental Group Mean Difference Score N = 156	Control Group Mean Difference Score N = 99	t-test <sup>1</sup>
CPSQ	40.75	-1.88	30.784**	23.08	-3.06	17.631**
CBPS	- 47.57	29.88	-15.100**	-12.08	3.24	12.539**
AAMT	10.31	.98	15.842**	5.33	1.41	9.229**
MGI	54.99	.65	14.056**	21.94	-.22	26.803**

Note 1: \*\* = *p* < .001. CPSQ = Career Preparation Status Questionnaire (Theoretical Range = 0-86). CBPS = Career Belief Patterns Scale (Theoretical Range = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Theoretical Range = 0-38). MGI = Measure of Guidance Impact (Theoretical Range = 1-125).

A primary objective of this study was to examine the efficacy of a shorter duration programme given the common need in schools to not divert too much time away from curricular work to career counselling. In order to compare the relative efficacy of the three-day programme against the one-day programme, a series of independent-samples *t*-tests was conducted (for *t*-tests and *p* values see Table 5). There was a statistically significant difference in the mean difference scores on the CPSQ with the Three-Day intervention group showing higher scores than the One-Day

intervention group. These results indicate that while the One-Day intervention contributed to an increase in students' career preparation scores, the Three-Day intervention led to a greater increase in scores. Similarly, a statistically significant difference was seen in the Mean CBPS Difference score wherein the Three-Day intervention group recorded lower scores than the One-Day intervention. This indicates that the Three-Day intervention was more effective in reducing the negativity in students' career beliefs. A similar advantage of attending the Three-Day intervention was seen on the Academic Motivation Test (AAMT).

Table 5: Comparison of the Three- and One-Day Conditions: Significance of the Difference of the Mean Difference Scores (T2 minus T1) in percentages with t-tests

Tests <sup>2</sup>	Three-Day Intervention Mean Difference Score N = 151	One-Day Intervention Mean Difference Score N = 156	t-test <sup>1</sup>
CPSQ	40.75	23.08	11.909**
CBPS	-15.92	-12.08	-2.998**
AAMT	10.31	5.33	9.974**
MGI	54.98	21.94	28.808**

Note 1 \*\* =  $p < .001$ . CPSQ = Career Preparation Status Questionnaire (Theoretical Range = 0-86). CBPS = Career Belief Patterns Scale (Theoretical Range = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Theoretical Range = 0-38). MGI = Measure of Guidance Impact (Theoretical Range = 1-125).

The positive outcomes of the Three-Day intervention compared to the One-Day intervention as shown in Table 5 were also seen in the acquisition of career development skills. These skills were measured by the Measure of Guidance Impact and include skills for decision-making, opportunity awareness, transition skills, and self-awareness.

**Index of Effectiveness.** To further examine the nature of effectiveness of the intervention, an Index of Effectiveness was used. While there were some students who showed no change after the intervention, the overwhelming trend was towards positive change. The highest change in career preparation status was seen from Level 1 and 2 towards IE level 3 (42.4% of students). Also as compared to the other scales, the CPSQ showed the fewest number of students (0.7%) with no change. By contrast, although change was seen across the four IE levels, negativity in career beliefs seemed to be the most resistant to change with the largest number of students (39%) showing no change.

## Discussion

It is clear that the longer intervention spanning over three days had better outcomes than the shorter version completed within one school day. It is possible that removing certain components of the original version affected the impact of the programme but

the data available do not allow a pinpointed comment on the exact nature of gaps created in the adaptation process. At the same time, resource and time limitations could cause school managements to opt for shorter duration interventions. It is, therefore, important to find the balance between duration of intervention and time/resource limitations to achieve the best outcomes.

## Implications for Career Guidance Services

### Career counselling programmes.

The programmes employed in this study were found to have facilitated the students effectively in the identification of their career interests and talents. The provision of career information was found to be useful for all sun-groups of students to gain a wider understanding of the world of work. Hence, career counselling programmes should be provided among male and female high school students in both rural and urban areas in Meghalaya.

### Duration of intervention and approaches to delivery of programme.

The Three-Day intervention programme was found to have yielded better results as seen in the study compared to the One-Day programme. With the Three-Day programme, more activities were provided for further assimilation of the concepts. However, considering all the challenges in obtaining permissions and retaining

participants during the study, as well as the suggestions from the head of schools and teachers, incorporating career counselling throughout the school calendar could be more feasible instead of a consolidated programme. Further, for schools which may not be able to employ a full-time counsellor, workshop approaches might be more feasible.

**Teaching methodology.** The Jiva career counselling programme tested in this study was designed with several group activities as well as individual work. This method of delivery found a high level engagement with the sample. Some of the students exclaimed, “I like building the poster and I enjoyed working with my group” (Male, Class 10, urban). Furthermore, it is recommended that translation of the materials to the local language(s) instead of English may also scale up the suitability of the activities.

**Meeting the parents of the students.** Discussion with parents could address underlying family career beliefs and thereby facilitate better career preparation. This meeting could be integrated with the parent-teacher meeting, if the school has such a system in place already.

**Inclusion of the wider community, teacher, headman and others for building awareness.** The teachers of this sample and also local headmen expressed their willingness to receive awareness programmes related to careers. A headman said, “Young people should think of their future. We can organise career programmes for the whole locality” (Headman, urban). Future career-related activities may be planned using the community-based participatory approach where all stakeholders can be included in the planning and implementation.

### Implications for Capacity Building

Capacity building for the delivery of career guidance services is urgently felt. One teacher mentioned, “We need training, Miss. Students ask us all the

time about careers” (Female teacher, Rural). A headman also asked, “Can we send our Seng Samla (Youth) leaders for training also?” (Headman, rural). Should such training be introduced, trainers should be familiar with tribal worldviews, become knowledgeable of the traditional occupations existing in the location.

### Development of Policy

The government and policymakers should take notice of the findings in this study and may incorporate the following points in the education policy:

- Creation of a post for school counsellor. The latest draft of the Guidance and Counselling Guidelines for States (National Council of Educational Research and Training [NCERT], 2015) mentions that although attempts have been made over the years, the status of the state level guidance agencies and counselling cell are either not established or are performing a limited role.
- There should be a mandate that career counselling be incorporated in the academic calendar. By doing so, the students will have access to the service throughout the year.
- Career *Mela* (i.e., a career fair) sponsored by the government may be incorporated in annual activities of every district of Meghalaya. A headman exclaimed, “I will approach the District Council for an annual district wide career programme” (Headman, Rural).

### Conclusion

Before the start of the careers interventions, this sample of high school students in Meghalaya showed, on standardised questionnaires, the lowest levels of career preparation status and academic motivation, and the highest negativity in the career beliefs. In contrast, despite the many difficulties encountered during the execution of the

study, the post-intervention scores revealed changes for the better. These findings point to the relevance and efficacy of the career guidance intervention and

serve as a timely message for the urgent need to deliver relevant career counselling services in a largely tribal region like Meghalaya.

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